

Information collected by community scientists about eelgrass and beach habitats is helping resource managers

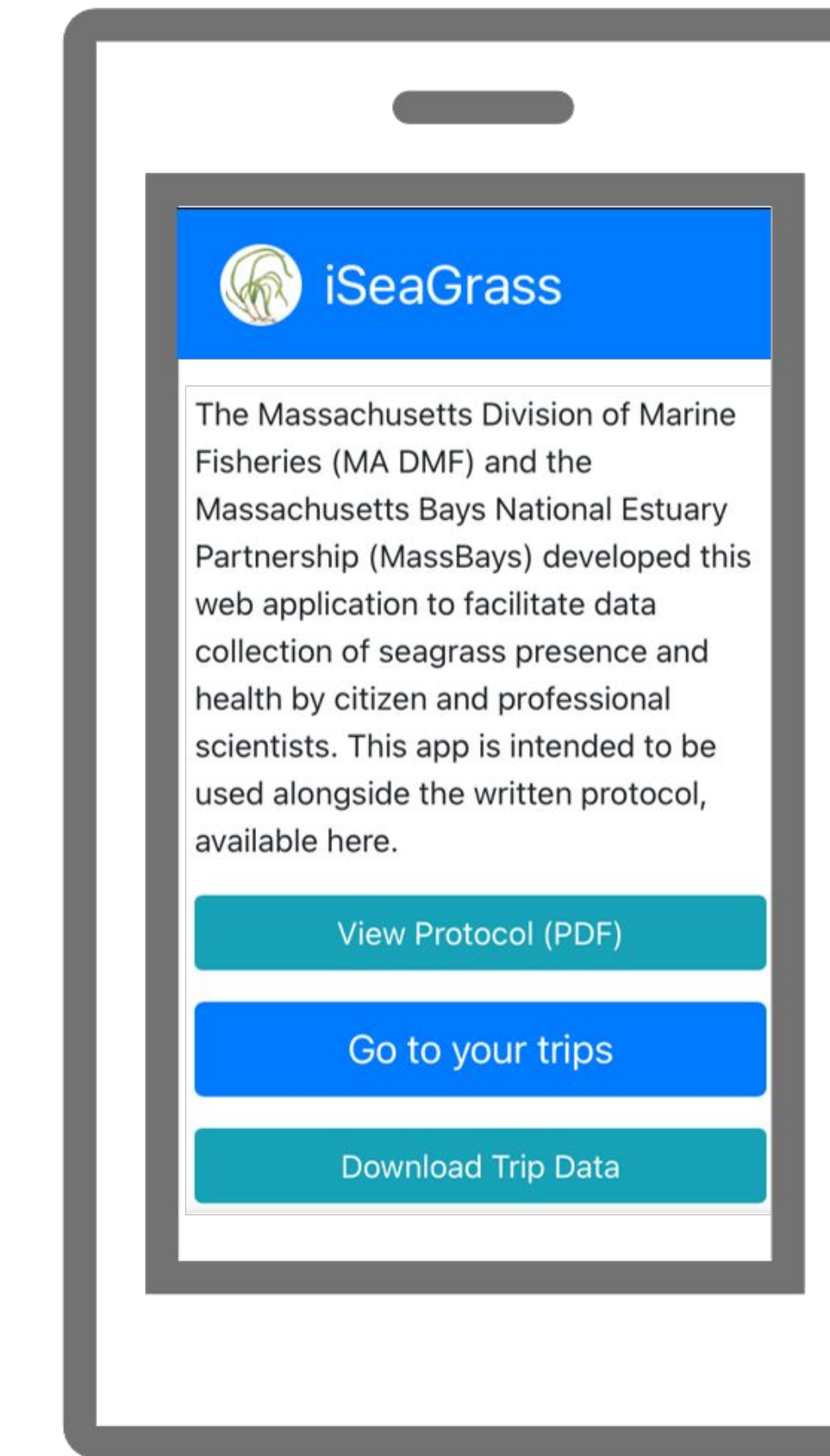


EELGRASS is a marine, meadow-forming plant which provides critical habitat for numerous fish and crustaceans. Eelgrass also filters the water, stores carbon, and buffers the shoreline from coastal storms. It exists in relatively protected coves and harbors that have adequate water quality and sediment conditions.

Eelgrass is declining in Massachusetts and around the world, and more monitoring is needed to better understand habitat extent and condition. MassBays and the Division of Marine Fisheries developed a citizen science protocol to help fill mapping gaps, increase monitoring data, and engage the public.

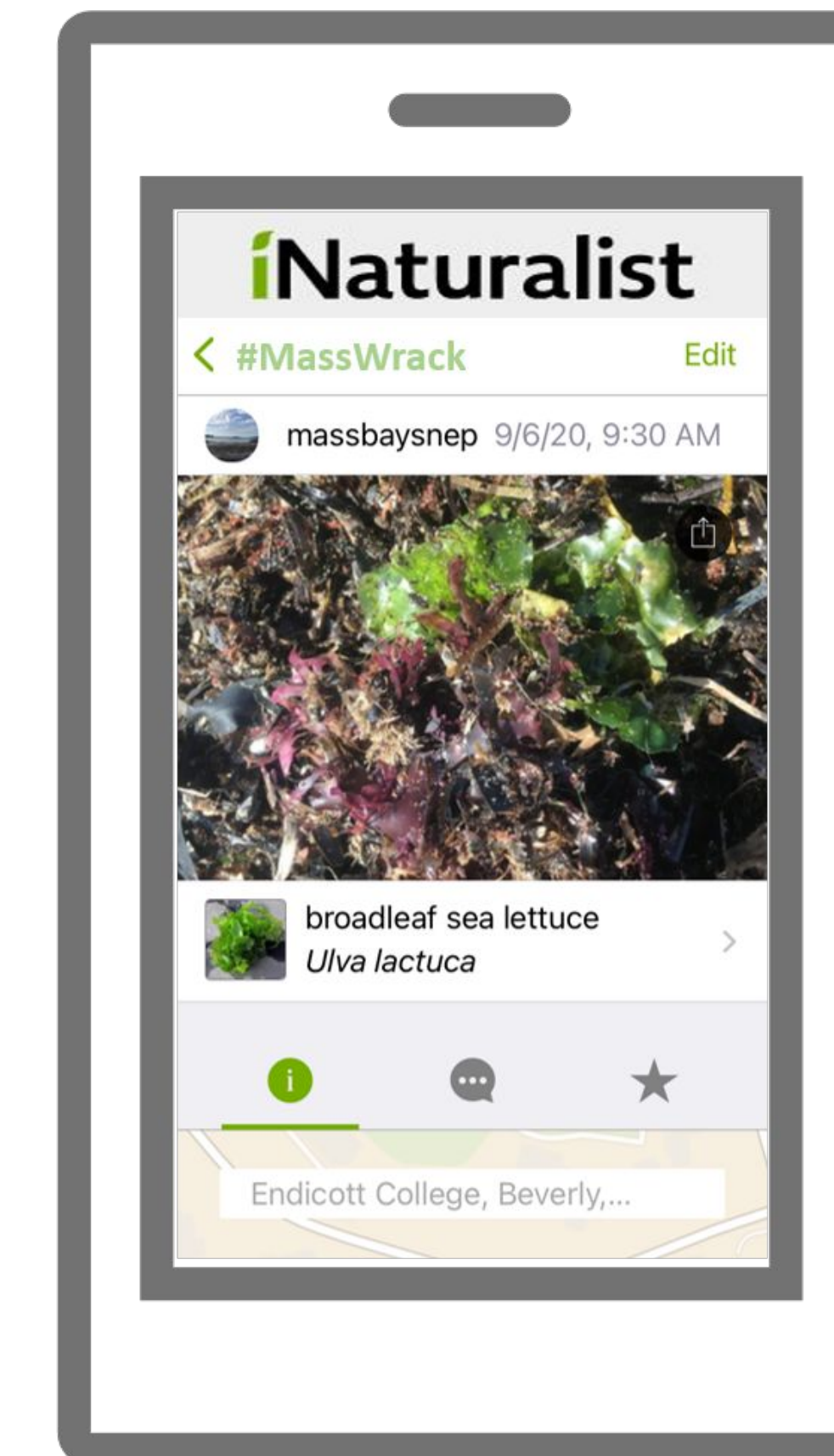
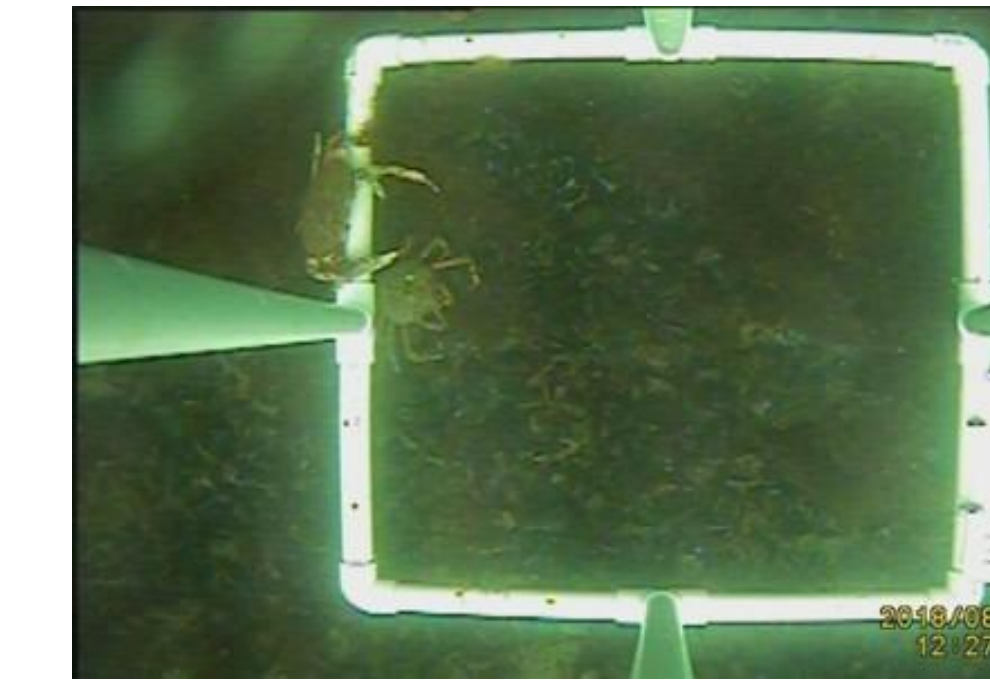
WRACK is a complex mix of materials left on shore as the tide recedes. Often forming long bands between high and low tides, the “wrack line” can include live and dead algae, salt marsh vegetation, and eelgrass. It can inform us about nearshore underwater habitats that are otherwise difficult to observe. Wrack can also include seeds from coastal and marine plants, offering a means of seed dispersal and habitat expansion.

While it’s sometimes removed to make room for beach towels and sun-bathers, wrack can be found at many of Massachusetts’ beaches. Within the wrack, an assortment of small crustaceans, bivalves, snails, and other organisms find protection and moisture while they await a ride home in the next high tide. Attracted by the prey, resident and migratory shorebirds are often seen grazing among the wrack. Wrack also helps trap sand that is swept by wind or waves across the beach, providing shoreline protection and helping to build up beaches and dunes.



The **iSeaGrass** web app helps collect data about seagrass presence, meadow density, signs of disease, and other organisms growing on the grass blades. It follows a standardized protocol first tested in a 2018 pilot study in the Duxbury-Kingston-Plymouth (DKP) embayment.

Since then, citizen scientists have documented areas of eelgrass loss in DKP, and resource managers are using their data to inform restoration plans.



The **iNaturalist** app helps users identify the plants and animals using a smartphone camera. Observations can be confirmed by other users, elevating finds to research-grade data for use by researchers around the world.

Within iNaturalist, the **#MassWrack** project compiles data from users making observations in the wrack line at any coastal Massachusetts beach, at any time of year.

MassBays will use these data to better understand the habitat value of this unique resource.

Why it Matters

Eelgrass meadows are dynamic - they can expand and shrink from year to year. While the Department of Environmental Protection collects aerial photos via airplane every five years, more frequent information can help resource managers track gains and losses and characterize meadow health. Citizen science data collected in **iSeaGrass** fills in the gaps so managers can be better informed when making habitat restoration and conservation decisions.

Wrack is not currently mapped, and is managed only at the local level and primarily on recreational beaches. Given its importance to coastal ecology, we think it's time to start gathering more information about it!

What You Can Do

#MassWrack can be done individually, on your own time, without any special equipment. **iSeaGrass** is a coordinated effort - discuss it with your local watershed organization or with MassBays to get involved.

Join #MassWrack project here:



SCAN ME

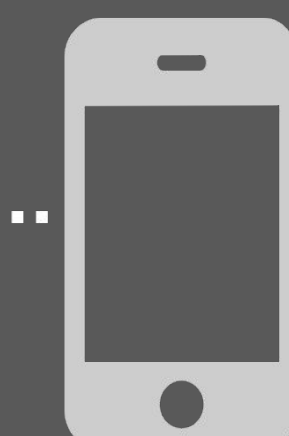
Find the iSeaGrass app here:



SCAN ME



Jill Carr
MassBays National Estuary Partnership



Scan to read our eelgrass technical report